



ISSUES AND CHALLENGES OF ELECTRONIC PAYMENT SYSTEMS

Dr M. Reddi Naik¹, Dr Kanderi Sridevi²

¹ Assistant Professor of Commerce, Govt Degree College Nagari, Chittoor Dt

² Assistant Professor of English, Govt Degree College Puttur, Tirupati Dt

ABSTRACT

An electronic payment is defined as a payment service that utilize information and communications technologies including integrated circuitcard, cryptography and telecommunications networks. E-commerce (electronic commerce) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. The focus of this paper is to identify and explain the issues and challenges in e-payment system and to examine the problems faced by consumers during e-payments. Electronic payments are financial transactions made without the use of paper documents such as cheques. Electronic payments include debit card, credit card, smart card, e-wallet, e-cash, electronic cheques etc. E-payment systems have received different acceptance level throughout the world; some methods of electronic payments are highly adopted while others are relatively low. This study aimed to identify the issues and challenges of electronic payment systems and offer some solutions to improve the e-payment system quality.

KEYWORDS: Electronic Payments, E-Commerce, Electronic Network , Internet

INTRODUCTION

Electronic payment system is a mode of payments over an electronic network such as the internet. Electronic payments are financial transactions made without the use of paper documents such as cheques. An e-commerce payment system facilitates the acceptance of electronic payment for online transactions. Also known as a sample of electronic data interchange (EDI), e-commerce payment systems have become increasingly popular due to the wide spread use of the internet based shopping and banking. E-payment system is a way of making transactions or paying for goods and services through an electronic medium without the use of cheque or cash. It's also called electronic payment system or online payment system-commerce is the buying and selling of the goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. These business transactions occur business to business, business-to-consumer, consumer-to-consumer or consumer to business. The success of electronic commerce depends upon effective electronic payment systems. The internet and online businesses are growing exponentially. Electronic payments include debit card, credit card, smart card, E-Wallet, e-cash, electronic cheques, net-banking and payment gate ways etc.

Types of payment systems

1. Debit card

A debit card is an electronic card that one can use as a convenient payment mechanism. It is generally issued by the bank and is connected through the ATM (Automated Teller Machine). A debit card is basically a better way of carrying cash or a cheque book. It is linked to an individual's bank account, allowing funds to be withdrawn at ATM and point of sale without writing a cheque. A debit card holder pay directly through bank for his purchases. In debit card system customers deposit in advance

into the bank and withdraw at the time of purchase. There are two types of debit card.

Online debit card.

Offline debit card.

2. Credit card

A credit card is a plastic card issued to the customers to lent money for purchase of goods and services. It is part of a system of payments. It is also known as a debt instrument. Its operation is through electronic fund transfer (EFT) installations and interbank network. The credit card payment on the online network can be categorized into three types:

1. Payment using plain credit card details
2. Payment using encrypted credit card details
3. Payment using third party verification

3. Smart card

Smart card is an electronic information carrier system that uses plastic cards about the size of a credit card, with an embedded integrated circuit that stores and process information. A smart card was first produced in 1977 by Motorola. A smart card contains a programmable chip, a combination of RAM and ROM storage and can be refilled by connecting to the bank. It is also known as smart card because the ability of chip to store the information in its memory makes the card smart.

4. E-Wallet

E-wallet is an online prepaid account where one can stock money, to be used when required. As it is a pre-loaded facility, consumers can buy a range of products from airline tickets to grocery without swiping a debit or credit card.

5. E-cash

E-cash is purely software based, anonymous, untraceable, online token payment system, available on Unix, windows as well as Macintosh platform. The way e-cash works is similar to that of electronic fund transfers done between banks. The users can easily spend digital money at any shop accepting e-cash without giving credit card details to the shop keeper.

6. Electronic cheques

An electronic cheque is an electronic copy(scanned image)of a real cheque, which is then transferred by e-mail .In addition to the cheques real signature, the transfer must be digitally signed using the sender's private key to authenticate the transfer.

7. Net banking

Net banking is another electronic delivery channel. Internet banking is the latest wave in information technology. In simple terms internet banking means any user with a personal computer and a browser can get connected to his banks website to perform any of the virtual banking functions. The greatest advantage of internet banking is the people sitting at home can transact business.

8. Payment gateways

A payment gateway is an e-commerce service that allows merchants to accept credit card and other forms of internet transactions securely via website.

List of payment gateways

1. Authorize net.
2. Pay pal.
3. Secure pay.com.
4. check out.com,Inc.
5. First data corporation.
6. Blue pay processing LLC.
7. Pay simple.

Issues and challenges regarding electronic payment systems:

1. Lack of usability

Electronic payment system requires large amount of information from end users or make transactions more difficult by using complex elaborated websites interfaces. Credit card payments through a website are not easiest way to pay as this system requires large amount of personal data and contact details in web form.

2. Lack of security

Customers have to provide credit card and payment account details and other personal information online. Providing these details by mail or over the telephone also entails security risks.

3. Issues with e-cash

The main problem of e-cash is that it is not universally accepted because it is necessary that the commercial establishment accept it as payment method.

4. Lack of trust

Electronic payments have a long history of fraud, misuse and low reliability as well as it is new system without established

positive reputation. The key reason why they do not trust a payment services and therefore do not make internet purchases.

5. Lack of awareness

Educated people also face problems in making online payments. Therefore, they always prefer traditional way of shopping instead of online shopping. Sometimes there is a technical problem in server customers tried to do online payments but they fails to do. As a result they avoid it.

6. Highly expensive and time consuming

Electronic payment system are highly expensive because it includes set up cost, machine cost, management cost etc., and this mode of payment will take more time than the physical mode of payment.

7. Online payments are not feasible in rural areas

In rural areas the population are not very literate and they are also not able to operate computers. As they are unaware about technological innovations, they are not interested in online payments. So the online payment systems are not feasible for villagers.

CONCLUSION

Electronic payments are financial transactions made without the use of paper documents such as cheques. Electronic payments include debit card, credit card, smartcard, e-wallet, e-cash, electronic cheques etc. The successful implementation of electronic payment system depends on how the security and privacy dimensions perceived by consumers as well as sellers. The risks in the online payments are theft of payments data, personal data and frauds have become rejection on the part of customers. Therefore and until the use of electronic signatures is wide spread, we must use the technology available for the moment to guarantee a reasonable minimum level of security on the network.

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